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THE HÆMATOKINETIC OR BLOOD-MOVING POWER,

Generated in the lungs by respiration, proved by insufflation awakening life and motion in the mangled remains of a crocodile after its body had been dissected and its head had been dead half an hour.

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Tchoupitoulas street, New Orleans, May 13, 1852.

EXPERIMENT WITH A CROCODILE.

As this is Dr. Dowler's experiment, and will be fully reported by him, I will not rob it of any interest by going into details of those phenomena, witnessed on the occasion, relating to the particular objects for which the experiment was made. For many years Dr. Dowler has been zealously prosecuting the study of the natural history of the alligator, and has made a great many vivisections of that animal. He appears to be laboring for the general benefit of science, without reference to the establishment of any favorite theory or doctrine; believing that it is better for those, who make experiments and gather facts, to leave to others the lighter task of drawing inferences from them. His observations, however, have been mostly directed to the nervous system. So intensely and for so many years has his great intellect been fascinated by neurological studies, that it seems difficult to entice him to withdraw it to the consideration of the phenomena produced by respiration on the circulation of the blood. It is only very recently that his faith has been shaken in the doctrine, which makes the nervous system the seat of sensation and intelligence; a diffused sensorium having been his favorite predominant idea. Nor has he yet assented to be regarded as a convert to the doctrine announced by Mrs. Willard, that "the chief motive power, which produces the circulation of the blood, is located in the lungs and derived from respiration." Whether the commonly-received theory of the circulation be true or not, or whether an element of power, another imponderable, the fourth in number (or, according to Professor Draper, the sixth, admitting his tithonic and phosphorogenic rays as such), heretofore overlooked, be generated in the lungs, sufficient to propel the blood—or the blood derive from the air inhaled into the respiratory organs, a self-locomotory power, are questions he will no doubt investigate when

he gets through with his observations and experiments on the nervous system. In the mean time, the numerous facts his experimental inquiries have contributed to physiology, will be increased rather than diminished in value by being considered as public property, belonging equally to every member of the profession who chooses to quote them as authority, giving him the credit for the same without compromitting him as an advocate of the particular physiological views they may be brought forward to support. The facts, derived from his experiment about to be quoted, are all the better as having been made without any bias in favor of the new theory of the circulation of the blood they are adduced to prove.

The crocodile, the subject of the experiment, measured twenty-one inches around the chest, and was four and a half feet long. Drs. Copes, Ely, Nutt, Coit, McKinley, Reynolds, Weatherly, Benedict, Hale, and myself, were present at the vivisection. Dr. Ely was appointed secretary to write down the phenomena as they occurred at every step of the vivisection, subject to the inspection and approval of all. At 9¼, A.M., the cervical cord was divided. An hour afterwards the dorsal vertebræ were cut asunder; the intervening hour being consumed in cutting and lacerating the animal in various parts. A long incision was made along the spine, and the posterior roots of the spinal nerves exposed and experimented on. The sciatic nerves and the brachial plexuses were exposed and cut. The musk glands of the lower jaw (the crocodile having no salivary glands) were cut away. At a quarter past 10 o'clock the head appeared to be *perfectly dead*, and was so reported to the secretary, who entered the facts on the minutes. But before this time an urgent engagement compelled me to leave the dissecting room. But two or three of the gentlemen I left in the room had ever examined into the merits of the new doctrine of the circulation; and only one or two, among the youngest, would have listened with any patience at all to the announcement that a woman had discovered a motive power in the lungs, which had escaped the attention of all the physiologists and anatomists of this and past ages, as far back as the records of medicine as a science extend.

When I returned and looked over the minutes of the secretary, I found that the second crocodile, martyred in the cause of science, had compelled the unbelievers to write that which, if it stood alone, ought to prove to all unprejudiced minds that a motive power *is generated* in the lungs by the process of respiration, sufficient to give motion to the blood, and that a great discovery, of a motor force in the animal economy, another imponderable, hitherto unknown to the scientific world, *has actually been made*. After the secretary had noted down the excision of the musk glands and the laying open of the chest and abdomen, the following important passage in the minutes of the vivisection appears next in order, verbatim et literatim: "*At ten minutes before eleven o'clock, the lungs were artificially inflated, when the heart assumed a more powerful action—the animal exhibited signs of coming to life. The throat dilated, and it attempted to breathe of its own accord, and the head and legs moved.*"

It is unnecessary to dilate on the truth here recorded, witnessed by ten highly respectable and intelligent physicians, who were taken altogether by surprise at the unexpected manifestation of such phenomena. It is proper to say, that after the medical gentlemen retired, Dr. Dowler, as he informed me, renewed the experiment of insufflating without effect, and supposed that the phenomena, which induced the ten physicians to enter on the minutes that the animal was trying to breathe of its own accord, might have been an ocular deception, from regurgitation of air in the process of inflation. But the motions, particularly of the heart and also of the head, reported to have been dead more than half an hour before, could not have been produced by such a cause or by any other cause than the hæmatokinetic power developed in the lungs by the process of inflation. Nor is it to be wondered at that insufflation had no effect after all the blood had been driven from the lungs by the action of the blood-moving power, which the first insufflation had generated therein. The crocodile had been so mangled, skinned and cut to pieces (literally into four distinct pieces, as far as the bones and nerves are concerned), that the lungs could not be supplied with blood after the little contained in the pulmonary arteries had been changed into arterial blood and driven out through the pulmonary veins into the heart by the development of the hæmatokinetic power, brought into play by the first insufflation. It should also be taken into consideration, that Dr. Dowler is most skeptical in regard to all unseen, intangible powers. It was Pyrrhonism, which led him in the first place to test the truth of the alleged nervous power by a train of experimental inquiry. He has no faith in any of those phenomena attributed to Mesmerism, or even patience to listen to the evidences of their existence. The two last experiments, the one at my office on the 6th of May last, and the other at his on the 13th, have shaken his faith in the nervous system, as the prime agent of motion, sensation, intelligence, the will, the passions, &c. He is now left upon a sea of doubt and uncertainty. His strong original intellect works to disadvantage, because neither he nor his countrymen are yet fired with the ambition of breaking the colonial vassalage under which the United States are still held, in all matters pertaining to literature and science. Nor does he see that the time is opportune to hoist the flag of young and independent America, with Minerva Occidua at the mast-head (Dea artium præses), and to steer boldly from the ignis fatuus, which, under the name of philosophy, has so long been deluding and dancing before the eyes of the wise men of Europe ; leading those, who see the best and move the fastest, deepest in the mud and mire of error—known to be error and not truth, because a Proteus, never the same to son and father—towards those beacon lights held out by Moses and the Prophets, in search of an explanation of the physiological phenomena his experiments have demonstrated cannot be found in the learning of Greece and Rome, nor in any additions or improvements thereto by Great Britain, France, Ireland and Germany, brought down to the present time. Instead of coming on board his barque among his crocodiles (as some of his pseudo friends would leave him to believe), to make war upon him or to rob him of the fruit of his labors, or to carry

him away as a captive, bound to the unwilling service for life of metamorphosing an airy dream, on matters and things the lady dreamer is presumed to know nothing about when awake, into solid, tangible, philosophical truth, I would gladly contribute my mite to make him and his valuable contributions to science, as well known and appreciated in the wide active world, as they already are in the closets of a few speculative philosophers in Europe, who lock up knowledge as the miser locks up gold, instead of applying it to practical and useful purposes, by sending it about doing good. Happy would I be to see him and his whole ship-load of crocodiles introduced into the halls of Princeton and Andover, and to witness the astonishment of the learned professors and the young students of divinity when he made these Pharaohs, once of Egypt but now of the Delta of the Mississippi, discourse to them in good Hebrew, and explain many obscure passages in the sacred writings, which theologians themselves never had sufficient faith fully to believe, but are nevertheless strictly and philosophically true. Such, for instance, as—"*the blood is the life of the flesh*"—"*life*," in its full, broad, literal and scriptural sense—consisting of motion, sensation and animal intelligence. How pleased would Mrs. Willard be, if he would let her accompany him, to see a crocodile brought to life by insufflation, and to hear it tell the assembled divines, that atmospheric air, introduced into the lungs, is, as the scripture says it is, "*the breath of life*," and that the breath gives motion, that is, *life*, by generating the very motive power in the lungs *she said it did*. But lest neither the crocodile nor the authority of Moses be sufficient to induce the skeptical theologians, particularly that portion of them who have come into the possession of the so-called worldly wisdom, the science of physiology (always a Proteus, and always false to the preceding generation), to believe in the possibility that such a fluid substance as the blood can possess life, sense and motion, the learned professor of chemistry in the University of Louisiana, Dr. J. L. Riddell, with his celebrated new and powerful microscope, should be of the party, and demonstrate to the divines of little faith and much physiology, the truth of a very important discovery he has just made, "*that blood corpuscles contain nucleoli as well as nuclei, and are highly-organized cellular bodies.*" If this revelation of one of the best microscopes in the world be taken into consideration, then the physiological doctrine, that Moses taught 3520 years ago, thought to be so improbable, if not impossible, that "*the blood is the life*," and "*the flesh derives its life therefrom*," is not only possible, but plausible; and Dr. Dowler's vivisections, when properly considered, prove it to be *the only true doctrine extant*. In justice to the present and future generations, if not to Moses, these proofs of the truth of the physiological portion of the doctrine he taught, ought to be entered in the next edition of Henry's & Clark's Commentaries. Seeing that the blood consists of highly (the very highest, says Riddell) organized cellular bodies, it should no longer be a matter of wonder, that atmospheric air inhaled into the lungs, in giving those curiously-organized corpuscles *life*, should also give them motion, as announced by Mrs. Willard. Because life, in the Hebrew sense of the term, necessarily implies motion. Yet such is the

tyranny of preconceived ideas, and such the force of education, it is most difficult for those, who have studied books more than nature, to conceive, by means of such second-hand kind of knowledge, the possibility of a motive power, sufficient to propel the blood, being generated and located in the lungs, seeing that the lungs are not fitted by their mechanism for mechanical propulsion. The error lies in limiting nature to two classes of motive powers, the one from mechanical and the other from chemical agency. Nature is not thus limited. There are many motive powers, active and powerful, which spring neither from the shop nor the laboratory. It is time wasted to look into mechanical contrivances or chemical actions to hunt up explanations of an established order of sequence when once discovered and its laws ascertained. It is sufficient to know that a motive power *is generated* when oxygen meets the blood, whether in the lungs of the higher animals; the branchiæ of fishes and molusks; the trachiæ of insects; the celia of the radiata; the fine hairs or the wheels of the rotifera; the radiant coronant of the tubularia magnifica; the pores of zoophites; the sacciform membrane including the albumen of the egg; the chorion and amnion of the ovum; or *the placenta of the fœtus*. I have called the motor force, thus generated, the hæmatokinetic or blood-moving power, merely to express a physiological truth, without involving that truth in the mysticisms of any mechanical, chemical, or any other theory whatever. Its entire unison with the scriptures I do not offer in its support, because truth, whether revealed in the Bible or extorted from nature by observation and experiment, ought to be able to support itself. But rather than be driven from the field of science unheard, as the advocate of some wild dream, some woman's dream, not worth a moment's attention, I have a perfect right to look into the structure of the languages of the nations of the East and into the doctrines taught in their sacred books, for evidences that the folly I am accused of advocating was regarded as sacred truth by the innumerable hosts of Israel, and taught as such by Moses and the Prophets, Paul and the Apostles. Truth should not be rejected, if it does not explain every truth. Nor should the hæmatokinetic or blood-moving power be rejected, because it does not explain the cause which gives motion to the venous blood, the lymph, chyle and the portal circulation. Let the lovers of science wait in patience for further revelations from the sacred crocodile, now luxuriating in the lakes, lagoons, bayous and prairies tremblantes of lower Louisiana, for more light on these dark questions of physiology.

DR. ZEIGLER ON ANÆMATOSIS.

[Concluded from page 434.]

Sir Humphrey Davy makes the following observations in relation to the peculiar properties of protoxide of nitrogen, the permanency of its effects, and its characteristic difference from all other stimulants.

"Though, except in one instance, when indeed the gas was impure, I had experieneed no decisive exhaustion after excitement from nitrous

oxide, yet still I was far from being satisfied that it was unanalogous to stimulants in general.

"It occurred to me, that supposing nitrous oxide to be a stimulant of the common class, it would follow that the debility produced in consequence of excessive stimulation by a known agent, ought to be increased after excitement from nitrous oxide."

To satisfactorily determine this, he made an experiment at 4, P.M., which consisted in drinking rapidly "large draughts of wine," the aggregate of which, though small in quantity, yet in consequence of his ordinary temperate habits, soon produced the usual state of stupefaction and insensibility. "In this situation," he observes, "I must have remained for two hours and a half. I was awakened by headache and painful nausea. The nausea continued even after the contents of the stomach had been ejected. The pain in the head every minute increased. I was neither feverish nor thirsty; my bodily and mental debility was excessive, and the pulse feeble and quick.

"In this state I breathed for near a minute and a half five quarts of gas, which was brought to me by the operator for nitrous oxide; but as it produced no sensations whatever, and apparently rather increased my debility, I am almost convinced that it was, from some accident, either common air or very impure nitrous oxide.

"Immediately after this, I respired *twelve* (12) *quarts of oxygen* for near four minutes. It produced no alteration in my sensations at the time; but immediately after, I imagined that I was a little exhilarated.

"The headache and debility, still, however, continuing with violence, I examined some nitrous oxide which had been prepared in the morning, and finding it very pure, respired seven quarts of it for two minutes and a half.

"I was unconscious of headache after the third inspiration; the usual pleasurable thrilling was produced, voluntary power was destroyed, and vivid ideas rapidly passed through my mind; I made strides across the room, and continued for some minutes much exhilarated. Immediately after this exhilaration had disappeared, I felt a slight return of the headache; it was connected with transient nausea. After two minutes, when a small quantity of acid wine had been thrown from the stomach, both the nausea and headache disappeared; but languor and depression, not very different in degree from those existing before the experiment, succeeded. They gradually went off before bed-time. I slept sound the whole of the night, except for a few minutes, during which I was kept awake by a trifling headache. In the morning I had no longer any debility. No headache or giddiness came on after I had arisen, and my appetite was very great.

"This experiment," he remarks, "proved that debility from intoxication was not increased by excitement from nitrous oxide. The headache and depression, it is probable, would have continued longer if it had not been administered. Is it not likely that the slight nausea following the effects of the gas was produced by new excitability given to the stomach?"

Finally, to more positively ascertain the characteristic properties of this

agent, he determined to institute a decisive experiment, as seen by the following—"To ascertain, with certainty, whether the most extensive action of nitrous oxide compatible with life was capable of producing debility, I resolved to breathe the gas in such quantities as to produce excitement equal in duration and superior in intensity to that occasioned by high intoxication from opium or alcohol."

In the execution of this project, he "was enclosed in an air-tight breathing box," into which twenty quarts of the nitrous oxide were thrown at one time, and repeated until eighty (80) quarts had thus been gradually introduced. The usual exhilarant effects were rapidly and powerfully induced, a description of which he gives in full. He remained in the box one hour and a quarter, and he continues—"The moment after I came out, I began to respire twenty quarts of unmingled nitrous oxide. A thrilling, extending from the chest to the extremities, was almost immediately produced. I felt a sense of tangible extension, highly pleasurable, in every limb; my visible impressions were dazzling, and apparently magnified. I heard distinctly every sound in the room, and was perfectly aware of my situation. By degrees, as the pleasurable sensations increased, I lost all connection with external things; trains of vivid, visible images rapidly passed through my mind, and were connected with words in such a manner as to produce perceptions perfectly novel. I existed in a world of newly-connected and newly-modified ideas. I theorized—I imagined that I made discoveries. * * * My emotions were enthusiastic and sublime; and for a minute I walked round the room, perfectly regardless of what was said to me. As I recovered my former state of mind, I felt an inclination to communicate the discoveries I had made during the experiment. I endeavored to recall the ideas; they were feeble and indistinct. One collection of terms, however, presented itself; and with the most intense belief and prophetic manner I exclaimed to Dr. Kinglake, '*Nothing exists but thought!—the universe is composed of impressions, ideas, pleasures and pains!*' Not more than half the nitrous oxide was consumed. After a minute, before the thrilling of the extremities had disappeared, I breathed the remainder. Similar sensations were again produced. I was quickly thrown into the pleasurable trance, and continued in it longer than before. For many minutes after the experiment, I experienced the thrilling in the extremities; the exhilaration continued nearly two hours. For a much longer time I experienced the mild enjoyment, before described, connected with indolence. *No depression or feebleness followed.* I ate my dinner with great appetite, and found myself lively and disposed to action immediately after. I passed the evening in executing experiments. At night, I found myself unusually cheerful and active; and the hours between 11 and 2 were spent in copying the foregoing detail from the common-place book, and in arranging the experiments. In bed I enjoyed profound repose. When I awoke next morning, it was with a sense of pleasurable existence, and this consciousness continued more or less through the day"

It will be observed that *one hundred* (100) *quarts* of the nitrous oxide were used in this experiment, and yet, notwithstanding the exces-

sive excitement thus produced, there was no subsequent depression, which is the invariable result of undue stimulation from all other known agents. His personal experience is also fully sustained by others who inhaled this gas, but for the record of which, it will be sufficient to refer to his work on the subject.

After the proof thus afforded of the powerful and unique physiological properties of this agent, I proceeded to designate some of the numerous derangements and conditions in the treatment of which it seemed peculiarly appropriate, and in conclusion made the subjoined general remarks respecting its applications. "Its use would also be indicated in all cases of debility or adynamia dependent on deficiency of oxygen in the blood, and also in those cases in which there was a tendency to degeneration or separation of its components, and in those diseases or conditions in which exciting active chemical, arterial or other action, would subvert abnormal tendencies or actions. To sum up, it may be used, first, to supply oxygen to the blood, where there is a deficiency or privation; secondly, as an arterial, cerebral, and nervous stimulant; and thirdly, as an alterative, and would be applicable in all cases calling for these indications, there being no complications contra-indicating its use."

Since I have been able to procure the nitrous oxide in the convenient form of the surcharged liquid, I have verified, so far as I have had an opportunity, the correctness of the views thus advanced, and in consequence am more and more fully impressed with its highly valuable properties and consequent importance as a therapeutic and toxicological agent.

To demonstrate, however, more conclusively its value and salutary influences, I will mention some of the cases and conditions in which I have found it so highly beneficial. Thus as a tonic it has proved useful in cases of both moderate and great debility. In chronic bronchitis, as before stated, it not only relieves the oppression, cough, &c., but seemingly greatly modifies and resolves the abnormal state of the tissues of which they are a consequence, and in some instances proving directly curative, also promoting more efficiently the correction of the local condition by its additional general tonic effects. In phthisis it has also exercised a very beneficial influence. As a preventive of this destructive affection, and as a moderator of some of its effects, it will doubtless always prove useful, being applicable in all stages except when complicated with high inflammation, &c. In the more advanced cases, however, in which there is an existing vomica, it should be used more cautiously than at first, and only sufficiently to furnish the atmospheric deficiencies. With regard to its modification and correction of the tuberculous diathesis, or incipient condition which gives rise to the development of this adventitious matter, I have very good evidence in several cases, exhibiting strongly a disposition to this abnormal production, and even indications of its action in some, several of which have had hæmorrhage and almost all possess hereditary tendencies. The general strength and health are thus rapidly improved, and its use usually soon produces a richness of color peculiar to a due arterialization of the blood.

The following from a medical friend who has been personally afflicted with pulmonary derangement, for which he has been for some time steadily using the usual medical and hygienic measures, will afford additional evidence of the favorable effects of this agent.

"In using half a bottle (f ʒ ivss.) of the nitrous oxide water twice a-day, the first effect after each dose, from half an hour to an hour, was dulness of the mind, which was probably occasioned by the saccharine matter of the syrup in the water producing derangement of the stomach. When a whole bottle" (equal to ʒ ix. containing about five times the volume of gas) "was taken at once, there was no sensation of dulness or sluggishness followed, but a gently pleasant degree of exhilaration was soon experienced, which continued for some hours.

"The secondary effects appeared to be an even flow of slightly elevated spirits, with augmented mental and physical energy. This state continued while the article was taken, and remained for two or three days after its use was suspended.

"The kidneys seemed to be stimulated to increased action; as at times there was more than double the quantity of urine passed, even when the skin was noticed to have been of the ordinary temperature.

"During the time of taking the contents of the first half dozen bottles (one per diem), a cough which had been troublesome for eighteen months, from chronic pulmonary affection, for which cod-liver oil and most of the hygienic measures had been employed, with the effect of mitigating, though not of completely arresting it, was suspended almost entirely for three or four days. It returned, however, on the reception of a cold; and the next half dozen appeared in consequence to have no influence upon it, but after the subsidence of the irritation from the cold, the cough again almost disappeared while using the water. This effect of the water on the cough was not even thought of by me when its use was commenced."

It should be known that during its use in this instance all of the other medicinal measures were suspended; and though this remedy is of very general application, it is not pretended that in such conditions it will of itself be entirely adequate to the cure, but with the other appropriate measures will form a valuable and salutary adjuvant.

Physiologically it frequently acts as a powerful and decided diuretic, exciting free and copious secretion, and consequent increased and frequent desire for micturition. In the application of this property to a case of anasarca, in which the fluid was so abundantly extravasated into the cellular tissue as to freely distend the whole tegumentary surface of the body even to the almost complete closure of the eyes, its use was followed by the happiest effects. This condition occurred in the person of a lady aged 58, it being unconnected with cardiac or renal complication, but dependent on pulmonary obstruction from apparently a chronic modification of the parenchyma of the lungs, induced by repeated attacks of catarrh, attended with a troublesome cough and connected with a general adynamic state of system. The indications calling for a remedy possessing such properties, it was accordingly administered, and operated very efficiently, not only as a diuretic, but as a

cathartic, tonic and resolvent, speedily relieving the patient by frequent and profuse diuresis, also apparently increasing biliary secretion, and thus exciting activity of the intestinal canal with regular alvine evacuations, mitigating the cough and distress of breathing, correcting in some degree the pulmonary derangement, and at the same time, materially improving the general vital energies. These results followed the use of about f ʒ xxiv. of the nitrous oxide water, which were taken at intervals of less than one week, and during its continuance all the above-mentioned beneficial effects were induced, having from the first commenced and been continuous with its employment, and depending on its influence. There remaining still some cough, indicative of the persistence of the primary condition, it was continued, and before the contents of three additional bottles of this liquid (equal to f ʒ xxvij.) were taken, all the symptoms disappeared, there being at the same time great and decided improvement of the physical and mental energies. At this time, after the lapse of several months, this lady still continues well, there having been no disposition to a return of the affection.

In a case of chronic irritation of the bladder, it acted very benficially and promptly, in almost immediately relieving the constant pain and uneasiness, and correcting the consequent continuous desire for micturition, and in a short time seemingly proved curative. Also in another case much more severe, in the unsuccessful treatment of which a medical gentleman informed me he had almost exhausted the materia medica in endeavoring to obtain relief for his patient, the nitrous oxide water acted with the greatest promptitude in not only facilitating the evacuation of the renal fluid, but in relieving the pain always connected with such efforts, and that under its influence the case was rapidly improving. In still another case somewhat similar to the first, it also acted very efficiently in promoting the function and affording relief.

These facts point out a peculiarity which I believe has not heretofore been noticed, viz., that there are two distinct causes for the existence of irritation and pain in any organic tissue. The first is that instinctive desire for the proper elements necessary for the healthy performance of its functions; and, the second, that directly dependent on the organic derangement. In the first, where this desire is not satisfied, like hunger or thirst, it becomes exaggerated until it amounts to irritation and exalted sensibility, and the consequences are, spasmodic action, exciting cough, strangury, &c. and pain. By supplying the deficient elements or materials, however, this source of derangement is removed and its consequences disappear. This fact seems to be of great practical importance in the treatment of diseases generally, as there is very little doubt that such deficiencies exercise a great influence in still further destroying the vital equilibrium and increasing the intensity of diseased action when already too violent. Thus, for instance, suppose there is general derangement of the secretory apparatus, it can readily be understood what a powerful additional source of mischief is thus superadded, or rather very frequently it is by this primary functional disturbance that the organic derangement ensues; while, on the other hand, evidence is being constantly presented

of the beneficial influence in mitigating diseased action by the mere promotion of the function of this apparatus.

As an ogygenating agent it seems to be highly efficient, and especially applicable in all cases depending on the privation of this agent ; but, as before stated, it not only supplies the elements for the healthy function of the lungs, but also for the other great depurative organs, as the liver, kidneys, &c. ; the latter more especially, and the results obtained from its practical application demonstrate the correctness of this.

In consideration of these facts and principles, I confidently predict that in numerous instances this remedy will not only prevent and correct many of those primary conditions upon which the numerous functional and organic aberrations and their adventitious productions depend, but will also materially promote their removal after being developed. It will also promote the ultimate cure of the general condition of which they are a consequence, and in addition to which they are such a powerful source of injury and destruction, particularly those more especially noticed in this paper, viz.—tuberculosis and its consequences ; albuminosis and its sequelæ ; adiposis and its concomitants ; and, still more certainly, glucosis and its resultants. I infer this, not only from the direct proof before given of the dependence of this latter condition on defective hæmatosis, but from the additional evidence furnished by the practical influence of its ordinary treatment, it being notorious that no other class of agents has been so efficient in the amelioration of this peculiar affection, as those substances, especially alimentary, containing nitrogen, which element is absolutely essential for the production of the normal constituents of the renal secretion, though a different explanation has usually been assigned for the favorable influences thus exercised. It is not, however, contended that the exclusive introduction of this one element will prove of itself curative, but it is by the combined stimulus and influence of the two constituents of this gas in producing the various metamorphoses incidental and necessary to the functions of all the organs and general vital action, that such remedial results are effected. Therefore, *a priori*, it would seem as if this agent was peculiarly indicated and applicable in the treatment of this particular, and all analogous affections.

Its free and prolonged use is, however, not always desirable or admissible, as I have observed emaciation from the undue acceleration of the normal assimilative and depurative functions, and the consequent increased consumption thus induced. Yet it may prove practically useful in those cases in which deposited matter is required to be absorbed, as effused coagulable lymph, &c., and I believe in this way it will act advantageously in the removal of tuberculous and other morbid deposits, while at the same time it is promoting the healthy organic processes, the induced action and influence being strictly in accordance with the organic laws for the removal of such extravasated and deposited matter ; and therefore, in consequence of the peculiarity of its action it is preferable to such remedies as mercury, iodide of potassium, &c., to which it may thus become, to a certain degree and in proper cases, a substitute.

This agent will doubtless, also, prove highly efficacious in many cases depending on the failure of the more strictly nervous and cerebral func-

tions, such as mental despondency, hypochrondriasis, dementia, paralysis, &c. In fact its beneficial influence in some of these derangements has long been known. Indeed, it is applicable in numerous instances, not only for the immediate influence in disease requiring direct medication, but in those depressed states or conditions of the economy in which the vital energies flag, and the organic processes are slightly disturbed or impeded, and which the vis medicatrix would readily correct or overcome through the moderate assistance of the stimulus and elements afforded by such an agent.

It will thus be seen that the results obtained from the practical application of this remedy sustain the views which I have heretofore advanced and advocated on the subject, proving that its valuable properties do not depend exclusively upon one quality or element, but upon the general combination, as it acts not only by its excitant influence through its arterial, nervous and cerebral stimulus, but also by supplying to the blood those elements, oxygen and nitrogen, essential to its integrity, and the promotion and continuation of the various organic metamorphoses necessary to the due performance of the functions of all the organs, whether nutritive, depurative or otherwise, some more directly than others, the concatenation of all, however, being requisite to the ultimate perfection and health of the organism. Hence it is better than any other known agent, capable of supplying the deficiencies of its great prototype, the atmospheric air, so far as an artificial product can compensate for the deficiencies of, or be substituted for, a natural one. Thus, by its superior, peculiar, and characteristic combination of properties, the nitrous oxide will, it is believed, subserve more efficiently and positively many of those purposes which are now so partially and imperfectly secured, or are quite impracticable by the present indirect, complex and too often ineffectual means.

Philadelphia, June 12, 1852.

DEATH FROM CHLOROFORM.

To the Editor of the Boston Medical and Surgical Journal.

Sir,—The following is a case of death from chloroform which occurred in the practice of a highly respectable physician of this city, drawn up by himself.

"Mrs. Emily Norton, aged 24, of nervous temperament, light complexion, light hair, light blue eyes, and of scrofulous diathesis, in her usual but feeble health, having suffered much for a year and a half from ulceration of the jaw, by a diseased tooth, commonly called tooth-evil, died April 9th, 1852, under the following circumstances:

Mrs. Norton had taken chloroform Feb. 17th, 1851, for the extraction of the tooth that caused her suffering; and though at that time it was thought to be all out, yet it proved otherwise, and she was not relieved. Friday, April 9th, 1852, with the knowledge of her husband and friends, in the house of her brother in New Haven, at 20 minutes past 3, P.M., she began to inhale chloroform gradually from a sponge (when moist-

ened of the size of a butternut), held about two inches from the nostrils. The sponge was moistened three times, and brought nearer by degrees. About a drachm of the liquid was used, not more than a fourth part as much as she had taken from the same physician a year before. She continued cheerful, remarking, 'she did not feel it,' 'should need more,' &c.; her pulse and respiration both regular, for about ten or fifteen minutes from her beginning to inhale the chloroform. Then, suddenly, the pulse became first irregular, then feeble, and in a few moments ceased wholly; the sponge was instantly removed on the change being perceived. Her respiration now was at longer intervals than natural, and laborious, and no action of the heart could be perceived by the ear applied to the chest. Her posture at first was half recumbent in a large easy chair inclined back. She was now immediately laid upon the floor, and by fanning in her face respiration resumed its easy and natural intervals for fifteen or twenty times; but no action of the heart could be perceived during these respirations. Artificial respiration was continued for half an hour; and counter-irritation, cold water, camphor, &c., applied to the face and nostrils, and stimulating injections were used, but all to no purpose; no signs of life appeared.

"Autopsy held twenty-four hours after death. Rigor mortis strong. *Thorax.*—Right lung fully engorged, and containing an unusual quantity of mucus in the bronchi, but otherwise healthy throughout. Left lung rather less turgid. Pericardium containing a small quantity of serum—about two drachms. Heart, rather small and flaccid; about ʒ ss. of fluid blood in the right ventricle. Left side empty. Copious discharge of liquid blood from the pulmonary veins on their being incised. The heart perfectly normal, with the exceptions already mentioned. Aorta filled with fluid blood. *Abdomen.*—Liver, no appearance of disease. Stomach perfectly healthy, containing a small quantity of imperfect chyme, and somewhat distended with air (perhaps the result of the attempt to inflate the lungs). Intestines, nothing remarkable. The other viscera of the abdomen were not examined. *Encephalon.*—Large quantity of dark-colored but quite fluid blood in the sinuses of the dura mater. External cerebral vessels not remarkably turgid. Centrum ovale, rather thickly studded with the punctæ vasculosæ. Ventricles, nothing remarkable. No coagula were found in any part of the body."

In the preceding case, chloroform was employed for a common purpose, and seems to have been used with at least ordinary prudence; and yet, the effect was disastrous. Cases of the kind have become somewhat common. It may be regarded as *proved* that chloroform, as an anæsthetic agent, is not only a powerful one, but is to some extent an uncertain and unmanageable remedy. To my mind it seems clear that the article should not be used for common purposes. If employed at all, it should be reserved for grave occasions of rare occurrence. But it will be said (as it has been) that its dangerous effects arise from its improper or incautious use. I admit that the manner of using it has an important bearing on the safety of the patient, but deny that the ault is always in him who administers it. The agent itself is not en-

tirely trustworthy. No experience and no precautions will in every instance enable one to anticipate its effects. Death sometimes comes on abruptly without being preceded by the usual change in the respiration, pulse, eye, or muscular symptoms, even when it has been administered with more than the customary care. But suppose it were a safe remedy in the hands of a few of eminent skill and rare experience, the objections to its frequent use are not removed. Extraordinary skill never can be acquired by the great body of our profession, and a medicine which supposes this cannot be generally prescribed without mischievous results.

The destructive effects of chloroform have sometimes been attributed to its impurities, but, in my judgment, without any good reason. The effects described are those proper to this article, and not such as are produced by other agents supposed to be impurities. In the cases of chloroform-poisoning which have come to my knowledge, the drug was *too* pure. The patient got too much of the *chloroform*. Therein lay the difficulty.

Sulphuric ether I believe to be a safer article for anæsthetic purposes than chloroform, and capable, in most cases, of accomplishing every desirable end. It acts with less promptness and less power and permanency, but these are not disadvantages. It is comparatively harmless, because its effects come on gradually, giving the practitioner time to mark the progress of the symptoms. And when the inhalation is stopped, the effects begin almost immediately to subside, differing in this respect from chloroform. I think the profession ought to return to its use, and abandon the more hazardous article. HENRY BRONSON.

New Haven, Ct., June 29, 1852.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JULY 7, 1852.

Annual Meeting of the Massachusetts Medical Society at Pittsfield.—A meeting of the Counsellors of this Society, as is provided in its by-laws, took place on the day preceding the anniversary, Tuesday, June 22d. The ordinary business was transacted, and several important special subjects—particularly certain proposed alterations in the by-laws, and the state of the finances—excited much interest, and were disposed of in a manner satisfactory to all present. As has been already announced in this Journal, George Hayward, M.D., of this city, was elected President. The other officers were for the most part re-elected.

The meeting of the Society was held on Wednesday, June 23d. The president-elect, Dr. Hayward, being absent, the chair was taken by A. L. Peirson, M.D., of Salem, President of the Essex South District Society, and ex-officio senior Vice President. Besides the usual preliminary business, the Society acted upon the amendment, of the by-laws proposed by the Counsellors, and passed them with great unanimity.

A letter was read addressed to the late president of the Society, by one

of its fellows, whose name he was requested not to divulge, relating to the subject of actions for mal-practice. This excited a good deal of interesting and useful remark, and was finally referred to a committee with instructions to report on the whole subject at the next annual meeting.

A report was received from a committee appointed to provide professional communications, and it was voted that 11 o'clock be assigned at the next annual meeting for the purpose of hearing such communications.

At 1 o'clock the annual discourse was delivered by Henry L. Sabin, M.D., of Williamston, on "the duties, trials, responsibilities and pleasures of the medical profession." It was an eloquent and instructive discourse, and was listened to with much attention by an audience, comprising not merely the fellows of the Society, but a large number of the citizens of Pittsfield and the neighboring towns.

At half past 2, the fellows of the Society and the invited guests sat down to a dinner provided by the landlord of the Berkshire Hotel. The divine blessing was invoked by the Rev. Dr. Hopkins, President of Williams College. It is only necessary to say that the festive part of this occasion was every thing that would have been anticipated from the eloquence, wit and genius of the anniversary chairman, Dr. Holmes, who presided at the table.

The meetings of the Council and Society were held in the Berkshire Medical College, a chaste and beautiful building, every way well adapted to its purposes.

Few if any meetings of the Society have ever been more satisfactory to those who attended them than this. It introduced many of the members to a region of our State, unequalled in New England, indeed hardly excelled anywhere, for its combined beauty and grandeur. Its deliberations were marked by unusual harmony, and were exclusively directed to the great fundamental objects of professional association, and were characterized by a truly professional spirit. We may congratulate ourselves that the amendments made in the constitution of the Society will hereafter keep away from this annual festival all those subjects which have heretofore so often interfered with its true purposes, and enable us to devote it exclusively to them, viz., professional intercourse and professional improvement.

Lunatic Asylums.—Dr. Galt's Report.—While science and the arts are progressing, the question may be asked—what is being accomplished for humanity of late? One of the marked advances of the age, the fruits of which are obvious, may be found in the improved management of the insane in all Christian countries. Medical men have contributed largely towards bettering their melancholy condition, by substituting kindness for chains and privations. The latter both aggravated and confirmed every variety of madness. Before us is the report of the Eastern Lunatic Asylum, at Williamsburg, Virginia,—a plain, straight-forward account of the transactions of the institution for the past twelve months. It gives the number, ages, sex, professions, weight, height, pulsations per minute of the radial arteries, color of the eyes and hair, temperament and complexion, and a minute record it is, too. But the causes that produced insanity, the treatment, and other things which a medical philosopher would like to know, are passed slightly over. Some of the annual reports of these excellent establishments might as well be stereotyped as written yearly.

It would be economy, as the saving of manual labor is a consideration. As for mental effort, it appears to us there has been a falling off within the last few years. These statistical tables, minutely drawn, adding immensely to the bulk of the book, but not to the understanding of the reader, are not very highly estimated by the best asylum managers; and the people begin to inquire why improvements are not made, as in other branches pertaining to medical practice. Are physicians discouraged, or have they arrived at the comforting conclusion that their responsibilities have ended with the creation of edifices for housing the most unfortunate of their patients? It would seem that no expectations are entertained of going beyond the present every-day measures, the common economy of well-regulated hospitals for lunatics. Some of the patients recover, and the process by which their disturbed minds have been restored consists in systematic attentions, regulated by the law that requires that we should do to others as we wish others would do for us. Other patients are unchanged, although brought under the same influences; and because such is the case, they are considered beyond reach. Here is to be the starting point for discovery. But leaving the further consideration of the subject, it is with much pleasure we bear testimony to the faithfulness of the medical superintendent of the Eastern Asylum, John M. Galt, M.D. During one year, from the 30th of Sept., 1850, there were at the institution 238 inmates, of whom 144 were males and 78 females. Within the same period, 45 new patients were received; deaths 23; and when the report was given in, 193 patients were under care. What have our correspondents to say in regard to the prospect of achieving something more for the benefit of the insane? Their views are solicited for publication.

New Hospital for the Insane in Mass.—From a Taunton paper the following article in regard to the second State Asylum for insane paupers, has been taken:—The whole edifice covers an area of 26,520 square feet, not including the two courts formed between the wings. The front is 358 feet long by 40 wide; the main projection from the centre is 50 by 60 ft.; there are three wings running back North, 200 feet by 40 wide. A large dome is to be placed over the centre of the main building, and two smaller ones from the centre of either wing. The whole building is to be three stories high, and from the top of the spire of the large dome to the ground, it will be 116 feet.

The Asylum is now in progress of erection, the foundation being nearly completed. The cellar walls and nearly the whole building are to be composed of Taunton brick. The basement facings are principally of Quincy granite. A water-pipe or aqueduct conveys a constant supply of good soft water, from the Hopewell reservoir, forced by a "water ram" to the premises some 56 feet above the level of the pond, for the use of the builders. The basement sill is from 40 to 50 feet above the level of the green.

It is a beautiful and airy location, and is already visited daily by hundreds for a pleasant walk or ride. When the Asylum is completed, it will afford one of the most commanding and delightful views from its dome, or even from the second or third stories, that can be found in the county, embracing a range of twenty or thirty miles in extent.

Deodorizing Agents.—An article is prepared at Portland, Me., that possesses the extraordinary property of overcoming disagreeable odors of

every kind. It is a black powder, sold reasonably, a little of which thrown into a cess-pool, a vault, in dark alleys, damp cellars, and wherever offensive smells are recognized, at once purifies the air and chemically changes the mephitic condition to a wholesome place for breathing. In hospitals, holds of ships, hide vessels, storage houses where provisions, skins, vegetables, fruits, feathers, and whatever passes through any stage of decomposition may happen to be, the Portland deodorizer is invaluable. This is the season when unwholesome vapors, poisonous exhalations, and all kinds of abominations prejudicial to health, are too often permitted to have unrestrained freedom. To counteract their baneful influences, and neutralize their powers of destruction, this simplest of all agents may be had recourse to. The deodorizing powder is cheap, and remarkably efficient in its chemical properties. When its true character is understood, no hospital, almshouse, prison, school, or institution, where large numbers of persons are necessarily brought together, will omit a free use of it. Southern cities, of all others, from the length of their warm season, should on no consideration be without this excellent article. New Orleans, particularly, would reap immense benefit from a systematic distribution of it among the poor, and in all their city institutions. After what has been said of the intrinsic value of the deodorizer in regard to its sanitary distinction, by Drs. Hays and Jackson, the celebrated chemists, the demand has been steadily progressing.

Microscopical Anatomy.—Dr. Durkee is steadily advancing in his microscopic researches. We have carefully examined some of his most recently prepared specimens of the mucous membranes, that far surpass any former achievements in his curious collection. To inject, with colored size, vessels so extremely minute as the instrument reveals them to be in some of the delicate tissues of the animal body, presupposes devotion to the pursuit, an intimate knowledge of their anatomical structure, and an uncommon degree of skill. Some of Dr. D.'s preparations are more important and suggestive than others, yet he has shown no partiality in his explorations. Nature slights nothing; on the contrary, however low in the order of mechanism, or elementary in function, each tube and filament is perfect, and the offices they fulfil are complete in every respect. Microscopical philosophy humbles the student in view of the great Designer. A purpose is evidently to be accomplished, and apparatus the most appropriate, beautiful, unerring and minute, is put in motion. A circle of actions seems to have been contemplated, and all the contingencies fully apprehended, before the vital machinery in the concealed recesses of an animal body was set in motion. Thought was employed in it all, and Infinite Intelligence and Infinite Power. But we are in danger of being carried away in a paroxysm of enthusiasm, unconsciously developed by a contemplation of these beautiful evidences of design, and must therefore leave the subject, by renewedly urging upon our medical friends to visit this show of wonders. The mere reading of Hassel, illustrated, as his treatise is, by highly colored drawings, falls inconceivably below the things themselves, in point of interest and satisfaction. One is nature herself, and the other a portrait. Great results are anticipated for science among us, by steady perseverance in the use of the microscope.

Diseases of the Urinary Organs, &c.—A second edition of Acton's celebrated Treatise, with additions and colored plates, has been given to the

medical public by Mr. Redfield's press, New York. No one has called in question the practical value of this work. There is no phase in the circle of syphilitic contaminations, not recognized by this author. The plates are true to nature. All town practitioners, of course, should be armed with this latest and best authority. Since it is the business of physicians to cure diseases, their first ambition should be to keep pace with the progress of discovery in the various branches of medicine. So extensive is the reputation of Mr. Acton in this particular department of therapeutics, that it is unnecessary to say more than that a new edition of his work is published, and is an improvement on the first.

Funeral Sermon on Dr. Doane.—An able and touching discourse, by the Rev. E. H. Chapin, on the early and melancholy death of A. Sidney Doane, M.D., who died in the discharge of his exciting professional duties at Staten Island, New York, has been printed for circulation among the friends of the deceased. Dr. Doane was a man of rare qualities, and with his bereaved family we deeply sympathize. May the children profit by their father's good name, industry and virtues.

Philadelphia College of Dental Surgery.—We have received the first annual announcement of this College, which has been recently established under, we think, very favorable auspices. To name the faculty will be to give the character of the institution. J. D. White, M.D., D.D. S., Professor of Anatomy and Physiology; Ely Parry, M.D., D.D. S., Professor of Chemistry, Materia Medica, and Special Therapeutics; Robert Arthur, D.D. S., Professor of Principles of Dental Surgery; Elisha Townsend, M.D., D.D. S., Professor of Operative Dental Surgery; T. L. Buckingham, M.D., Professor of Mechanical Dentistry; D. P. Whipple, M.D., Demonstrator of Surgical and Mechanical Dentistry. Elisha Townsend, Dean of the Faculty, Locust St. above Schuylkill Seventh.

It seems appropriate that the Athens of *medical* learning in this country should also be the seat of *dental* instruction. We believe the facilities for imparting this kind of instruction are fully equal, in Philadelphia, to those of any other city, and are sure that her dentists are not a whit behind any, in their qualifications for teaching.

We bespeak for the enterprise its full share of patronage, and cordially wish the faculty success in their undertaking. — *New Jersey Medical Reporter.*

Extraordinary Cure of Rheumatism. By J. E. Stewart, M.D., Jackson, Tennessee.—A gentleman in this County who has been laboring under a mild attack of Sciatic Rheumatism for a considerable time, recently paid a visit to a friend. It so happened that this friend had a phial of Mexican Liniment, and one of the patent medicine known as Pain-killer. Before going to bed he requested his wife to rub some of the liniment on the affected part, and also swallowed a dose of the Pain-killer, supposing that by a combination of the nostrums he would stand a fairer chance of relief. Having retired he soon fell asleep; his nap, however, was short, as he was awakened by the uneasiness experienced in his hip. He told his wife to re-apply the liniment, and, there being no light in the room, she took up what she supposed to be the nostrum and gave him a good rubbing. The

husband said he felt much relieved—fell asleep, and rested quietly till morning.

What was their surprise on waking, to find that instead of the liniment, the wife had applied the contents of a bottle of—*ink?* Common writing ink! there is no mistake, Doctor, about this; his person and linen proclaimed the fact in startling colors. This proves most conclusively the power of the imagination over the corporeal fabric. For had it not been for the coloring matter of the ink, the whole credit of the cure would have been attributed to the worthless nostrum; nor could any argument or mode of reasoning have convinced him of the contrary. However, as it was, this man's faith was very considerably shaken in patent medicines. Nothing has been heard of him since the morning of the *dark* rubbing.—*Nelson's Northern Lancet.*

External Use of Ipecacuanha. By M. Levioux.—Ipecacuanha applied to the skin produces a special form of eruption. Incorporated with some fatty substance, and rubbed on the surface for a few moments, it gives rise to a crop of small elevated pimples, of a bright red color, very numerous and frequently confluent; they soon form true pustules, of small dimensions, depressed in the centre, suppurating slightly, drying rapidly, and leaving no scar; the pain attending the eruption is slight. It is prepared as follows: R. Ipecac, 1 part; Olive oil, 1 part; Axunge, 2 parts.

Medical Miscellany.—The last cholera specific is a table spoonful of black pepper in a swallow of water.—Dr. John A. Warder is president of the Cincinnati Association of Botanists.—Roback, the foreign astrologer, who was doing a sweeping business in New York in the way of prescribing for diseases, has been arrested on the charge of swindling, for not curing a certain patient.—According to Dr. Reese's Journal, the expenses of the Lunatic Asylum on Blackwell's Island, N. Y., for the past year, were $28,098 06. Dr. B. Ogden is the sole consulting physician.—Cholera at Rangoon, which was terrific at one period, has subsided.—A negro recently died at Jefferson, Chemung Co., supposed to be 110 years old.—Cyrus Fairbanks died lately, at Ashburnham, Mass.. aged 100 years and one month.—Dr. H. G. Bussey is a candidate for Congress, in Perry district, Pennsylvania.—Is the New York Medical Times still published? No copy has reached us for many months.

To Correspondents.—Dr. Cummings's paper on Fellis Bovini has been received. Also additional remarks on the the Ether Discovery, by H. A. H.

Erratum.—In the caption to Dr. Mitchell's case of injury, page 409, the word "counter irritation," as was doubtless noticed by the reader, should have been *counter-fracture.*

Deaths in Boston—for the week ending Saturday noon, July 3, 57.—Males, 32—females, 25. Abscess, 1—accidental, 3—inflammation of bowels, 1—cancer, 1—consumption, 15—convulsions, 1—coup de soleil, 1—cyanosis, 1—dysentery, 2—debility, 1—diarrhœa, 1—dropsy, 1—dropsy of brain, 1—drowned, 1—erysipelas, 1—fever, 1—scarlet fever, 5—disease of the heart, 2—infantile, 5—inflammation of the lungs, 2—inflammation of the liver, 1—marasmus, 5—measles, 1—old age, 1—palsy, 1—rheumatism, 1—teething, 1.

Under 5 years, 23—between 5 and 20 years, 4—between 20 and 40 years, 23—between 40 and 60 years, 4—over 60 years, 3. Americans, 18; foreigners and children of foreigners, 39. The above includes 7 deaths at the City institutions.

Injurious Effects of Chemical Works on Timber and Growing Crops.—At the Liverpool Assizes, on the 5th inst., the first of four separate actions came on for trial against Messrs. Muspratt & Co., proprietors of the chemical works at Newton, near Liverpool, for alleged injury done to certain trees growing on the lands of the various plaintiffs, by the noxious gas or vapor proceeding from the defendants' works. A number of respectable agriculturists deposed that the estate formerly abounded in beautiful oak, elm, and ash timber; but since the erection of the chemical works, the tops and shoots of the trees had been killed, the young grasses and crops were withered up whenever the wind blew the vapor from the chemical works upon them; not a fruit-tree, quickset hedge, or flower-shrub could live; the timber began to decay; when trees were afterward felled, they were found to be in a bad state, and much of the timber that had been left standing had died away until torn up by the wind from want of vigor. The ravages seemed to have extended to a distance of several miles from the works. Some of the witnesses had noticed the vapor descend, and, on such occasions, every metal article in the houses where it could obtain entrance, even if those articles were bright and polished just before, would become speedily covered with a dull, rusty coating. It appeared that the substances employed by Messrs. Muspratt were chiefly common salt and oil of vitriol, from which was evolved muriatic acid gas, which, combining with the atmosphere, and falling to the earth, destroyed both animal and vegetable life. A great number of experiments had been tried, with a view to remove the destructive effects of the vapor, but they were unsuccessful, and the defendants had to pay compensation to various parties from time to time, for the injury done to their crops; and among those parties were the present plaintiffs. The works having been given up, the question for the jury was as to the actual amount of damage which had been previously caused to the timber, fences and crops of the plaintiffs. Mr. Justice Cresswell thought that as the works had been given up, it was a great pity to go on trying actions; and inquired whether there could not be some mode adopted of arranging matters, seeing that the defendants had not sought to set up any question of right. The suggestion of the learned judge, however, was not acceded to by the counsel on either side, and the examination of witnesses consequently proceeded. A compromise of all the actions was, however, finally arranged, the respective plaintiffs agreeing to accept £500 each, or a total of £2000, Messrs. Muspratt binding themselves to pull down the works.—*Lancet.*

Kentucky School of Medicine.—Some changes have been made in the organization of the Faculty, which may naturally influence the future destiny of this school. The accession of Professor Benjamin W. Dudley to the chair of Surgery, the duties of which he agrees to discharge during the ensuing session, cannot fail to render the organization acceptable to the profession throughout the west and south, and to afford to the friends of the School the surest guarantee of her triumphant success. In order to procure the valuable services of Prof. B. W. Dudley, Professor Flint cheerfully withdrew from the Surgical chair, and assumes the duties of that of Physiology and Clinical Surgery. The chair of Theory and Practice, vacated by the resignation of Prof. Annan, has been filled by the transfer of Prof. Bullitt, and that of Materia Medica by the appointment of Dr. E. D. Foree.—*Transylvania Med. Jour.*